It is claimed:

1. Method for the operation of an in-line coating installation with an inward transfer chamber (2), an adjoining buffer chamber (21), a process chamber (3) adjoining thereon, a further buffer chamber (22) adjoining it and an outward transfer chamber (4) adjoining it, with gates (61, 64, 65, 62) provided between the chambers, which can be opened and closed, and where the inward transfer chamber (2), the buffer chamber (21, 22) and the outward transfer chamber (4) are developed as identical modules and for receiving substrates up to a specified maximum size, **characterized in** that for the coating of substrates (55), which are greater than the modules, the gate (61) between the inward transfer chamber (2) and the buffer chamber (21) as well as the gate (62) between the buffer chamber (22) and the outward transfer chamber (4) are opened and the pressure conditions of the buffer chambers (21, 22) and of the inward transfer (2) or outward transfer chamber (4) are adapted to one another.

2 Method as claimed in claim 1, **characterized in** that the chambers (2, 21, 3, 22, 4) are equipped with their own transport arrangements (34 to 37; 38 to 41; 42 to 53) for substrates (55) and the transport rates of these transport arrangements (34 to 37; 38 to 41; 42 to 53) are matched to one another.

3. Method as claimed in claim 1, **characterized in** that the process chamber (3) comprises at least two slit diaphragms (30, 29), of which the one slit diaphragm (30) forms a left boundary of the process chamber (33) proper and the other slit diaphragm (29) a right boundary of the process chamber (33) proper.

4. Method as claimed in claim 1, **characterized by** the following steps:

- the gate (61) at the entrance to the first buffer chamber (21) and the gate (62) between the second buffer chamber (22) and the outward transfer chamber (4) are opened,
- the gate (60) at the entrance of the inward transfer chamber (2) is opened,
- a substrate of a length exceeding the length of the inward transfer chamber (2) or of the

buffer chamber (21) is transported into the inward transfer chamber (2) and the buffer chamber (21),

- the gate (60) at the entrance of the inward transfer chamber (2) is closed,
- the space formed by the inward transfer chamber (2) and, with the gate (64) at the entrance to the process chamber (3) closed, the buffer chamber (21) is evacuated to a specified pressure,
- upon reaching a specified pressure, the gate (64) at the entrance of the process chamber (3) is opened,
- the substrate (55) is transported into the process chamber (3) and the gate (64) at the entrance of the process chamber (3) is closed again,
- the substrate (55) is worked in the process chamber (3),
- the gate (65) at the exit of the process chamber (3) is opened,
- the worked substrate (55) is moved into the space formed of the buffer chamber (22) and the outward transfer chamber (4),
- the gate (65) at the exit of the process chamber (3) is closed,
- the gate (63) at the exit of the outward transfer chamber (4) is opened,
- the worked substrate (55) is moved to the outside,
- the gate (63) at the exit of the outward transfer chamber is closed.

5. Method as claimed in claim 4, **characterized in** that after the inward transfer of the substrate into the space formed of the inward transfer chamber (2) and buffer chamber (21) and, after the gate (60) is closed, first the pumps (9 to 11) associated with the inward transfer chamber (2) carry out an evacuation from atmospheric pressure to a first specified pressure, and that subsequently the pumps (23) associated with the buffer chamber (21) carry out an evacuation to a pressure corresponding approximately to the pressure of the process chamber (3).

6. Method as claimed in claim 5, **characterized in** that the pressure in the space formed of the inward transfer chamber (2) and buffer chamber (21) is lowered from atmospheric pressure first to approximately 7 mbar and, subsequently, the pressure in the same space is decreased to

approximately 0.05 mbar.

7. Method as claimed in claim 1, **characterized in** that the transport arrangement (34 to 37) of the inward transfer chamber (2) and the transport arrangement (38 to 41) of the adjoining buffer chamber (21) are operated synchronously.

8. Method as claimed in claim 7, **characterized in** that the transport arrangement (42 to 53) of the process chamber (3) is operated at the same rate as the transport arrangements (34 to 37; 38 to 41) of the inward transfer chamber (2) and the buffer chamber (21).

9. Method as claimed in claim 1, **characterized in** that in all chambers (2, 21, 3, 22, 4) pressure meters are provided, whose pressure is queried by a control, and that this control carries out a switching action when specified pressures are reached.

10. Method as claimed in claim 9, **characterized in** that the switching action is the opening or closing of gates or the opening or closing of valves disposed between chamber and pump.

11. A method for the operation of an in-line coating installation having an inward transfer chamber, an adjoining buffer chamber, a process chamber adjoining thereon, a further buffer chamber adjoining it and an outward transfer chamber adjoining it, with gates provided between the chambers, which can be opened and closed, and where the inward transfer chamber, the buffer chamber and the outward transfer chamber are developed as identical modules and for receiving substrates up to a specified maximum size, wherein for the coating of substrates, which are greater than the modules, the gate between the inward transfer chamber and the buffer chamber as well as the gate between the buffer chamber and the outward transfer chamber are opened and the pressure conditions of the buffer chambers and of the inward transfer or outward transfer chamber are adapted to one another.

12 The method of claim 11, wherein the chambers are equipped with their own transport

arrangements for substrates and the transport rates of these transport arrangements are matched to one another.

13. The method of claim 11, wherein the process chamber comprises at least two slit diaphragms, of which the one slit diaphragm forms a left boundary of the process chamber proper and the other slit diaphragm a right boundary of the process chamber proper.

14. The method of claim 11, wherein

the gate at the entrance to the first buffer chamber and the gate between the second buffer chamber and the outward transfer chamber are opened;

the gate at the entrance of the inward transfer chamber is opened;

a substrate of a length exceeding the length of the inward transfer chamber or of the buffer chamber is transported into the inward transfer chamber and the buffer chamber,

the gate at the entrance of the inward transfer chamber is closed,

the space formed by the inward transfer chamber and, with the gate at the entrance to the process chamber closed, the buffer chamber is evacuated to a specified pressure;

upon reaching a specified pressure, the gate at the entrance of the process chamber is opened;

the substrate is transported into the process chamber and the gate at the entrance of the process chamber is closed again,

the substrate is worked in the process chamber;

the gate at the exit of the process chamber is opened;

the worked substrate is moved into the space formed of the buffer chamber; and the outward transfer chamber;

the gate at the exit of the process chamber is closed;

the gate at the exit of the outward transfer chamber is opened;

the worked substrate is moved to the outside; and

the gate at the exit of the outward transfer chamber is closed.

15. The method of claim 14, wherein after the inward transfer of the substrate into the space formed of the inward transfer chamber and buffer chamber and, after the gate is closed, first the pumps associated with the inward transfer chamber carry out an evacuation from atmospheric pressure to a first specified pressure, and that subsequently the pumps associated with the buffer chamber carry out an evacuation to a pressure corresponding approximately to the pressure of the process chamber.

16. The method of claim 5, wherein the pressure in the space formed of the inward transfer chamber and buffer chamber is lowered from atmospheric pressure first to approximately 7 mbar and, subsequently, the pressure in the same space is decreased to approximately 0.05 mbar.

17. The method of claim 11, wherein the transport arrangement of the inward transfer chamber and the transport arrangement of the adjoining buffer chamber are operated synchronously.

18. The method of claim 17, wherein the transport arrangement of the process chamber is operated at the same rate as the transport arrangements of the inward transfer chamber and the buffer chamber.

19. The method of claim 11, wherein in all chambers pressure meters are provided, whose pressure is queried by a control, and that this control carries out a switching action when specified pressures are reached.

20. The method of claim 19, wherein the switching action is the opening or closing of gates or the opening or closing of valves disposed between chamber and pump.